"A NEW SOLID SORBENT/CATALYST FOR THE COMBINED REMOVAL OF SULFUR AND NITROGEN OXIDES FROM HIGH TEMPERATURE GASES"

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BIOGRAPHICAL SKETCH

Dr. Ates Akyurtlu has his B.S. and M. S. degrees in chemical engineering from the Middle East Technical University, Turkey and a Ph.D. degree in Chemical engineering from the University of Wisconsin, Madison, WI. Currently he is a professor of chemical engineering at the Chemical Engineering Department of Hampton University. For the last 15 years his research was concentrated in the area of environmental sorbent and catalyst development and evaluation. He has published several papers and made numerous presentations in this area.

ABSTRACT

Significant work has been done by the investigators on the cerium oxide-copper oxide-based sorbent/catalysts for the combined removal of sulfur and nitrogen oxides from the flue gases of stationary sources. A relatively wide temperature window was established for the use of alumina supported cerium oxide-copper oxide mixtures as regenerable sorbents for SO2 removal. Preliminary evaluation of these sorbents as catalysts for the selective reduction of NOx gave promising results with ammonia, but indicated low selectivity when methane was used as the reductant.